ABSTRACTS OF RESEARCH STUDIES

FUNDED FROM 1984-1989

ON RECOMMENDATION OF

THE PROVINCIAL SENIOR CITIZENS

ADVISORY COUNCIL*

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INTRODUCTION

This paper contains brief information about twenty-four research on aging studies which have been funded on the recommendation of the Provincial Senior Citizens Advisory Council, now the Seniors Advisory Council for Alberta.

Since 1983 grants have been provided by the Department of Family and Social Services (formerly Social Services) to aid in the conducting of social, psychological and environmental research on aging. The applications for this funding have been reviewed and recommended by the Advisory Council.

The grants in aid of research on aging started in the fiscal year 1983/84. In its 1983 report to the Minister of Social Services and Community Health, then the Honourable Neil Webber, the Council recommended that

1. The Government of Alberta support incentives to promote research on aging.

2. The Minister of Social Services and Community Health establish a separate fund for research on aging, with particular emphasis on non-medical research and applied and evaluation research.

3. The Minister establish a subcommittee of the Provincial Senior Citizens Advisory Council to administer the research fund.

In making this recommendation the Council developed a background paper which outlined the major factors affecting gerontological research activities in Alberta and some of the benefits to be obtained from promoting these activities.

The information gathered for the background paper showed that, although funds for research on aging were available, the granting of awards was both restrictive and highly competitive. Only the Province

of Ontario had separate funds for this type of research. A significant number of Alberta researchers had expressed interest in this research area, but there were few who could actively pursue and conduct research specific to aging, for the incentives were not there. The report pointed out the following:

> The disappointing conclusion from this review is that Alberta and elderly Albertans could be benefiting more from the wealth of human resources willing to work in this area. There are innumerable projects that could have a major impact on treatments and programs for the elderly. Research could also potentially reverse the increasing costs of existing provincially sponsored programs. However, the researchers must have a more secure financial base from which to work in order to realize these types of benefits.

In making its recommendation the Council wrote:

> There is an urgent need for more research on aging, especially in the area of maintaining health and well-being in the later years....The Council is convinced that research will assist in resolving the complex medical, social and psychological issues facing the elderly in today's society. Research specific to aging is imperative to improve and maintain the well-being of the elderly and to ensure appropriate utilization of resources. The Council is equally convinced that a separate fund for research on aging is required to support this type of research.

In May 1984, the Minister announced the establishment of the research fund at the annual meeting of the Alberta Council on Aging held in Red Deer that year. Up to $100,000 annually of the unallocated grant funds of the Senior Citizens Secretariat, the administrative arm of the Council, were to be used for this purpose.

The Council then drew up guidelines for the use of these research funds, as well as an application form. Public advertising started, and a special subcommittee of the Council was established to review and advise on

the applications. Applications for funding were to be received by the end of November of the year preceding the fiscal year in which the funding would be provided.

The policy was established that those applying for research grants were to be connected with a health or social agency or an educational institution, and the principal investigators were not to benefit financially from the research funding.

All applications received by Council, which were considered to be appropriate for funding, were sent to professional reviewers for comments. Following this, final recommendations regarding approval were made by Council, and the applications were sent to the Minister for final review and approval.

In all, 33 research grants have been provided, the vast majority to researchers connected with post-secondary educational institutions. In two instances, a researcher received more than one grant. Not all the studies have been completed to date.

Christopher A. Armstrong-Esther, Mark L. Sandilands, Debra Miller, and Brad Hagen, "Validation of Musical Movement (Exercise), Occupational Therapy and Social Therapy for the Elderly," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1988.

Sixty-nine lodge residents volunteered to take part in a ten-week exercise (musical movement) activity. An additional 30 residents participated in a social activity programme. A further group of 59 residents in a nursing home were allocated non-randomly to a control, occupational therapy, or exercise group. Improvements in cognitive function and upper body joint function, especially wrist, finger, elbow and shoulder movement and spinal flexion were recorded for lodge residents attending regularly. Lodge residents in the informal social activity programme showed no improvement in the measured parameters. Attendance was intermittent and reflects the problem of motivation and participation in informal activities. Statistically significant improvements for nursing home participants were recorded in joint function, life satisfaction, cognitive function and level of dependency. Over the five months of the study subjects achieved a high level of independent living due to improvements in functional abilities. The control group showed progressive deterioration.

Donald A. Bakal and Linda E. Weaver, "Post-Stroke Prognosis on the Basis of Learning Performance," funded by the Alberta Senior Citizens Secretariat, 1989.

Performance of stroke patients on computer-assisted learning tasks was documented at 3 to 5 weeks post-stroke. Early learning performance was found to be strongly predictive of progress made in treatment and level of independence achieved by 6 months post-stroke. The predictive power of learning was maintained while controlling for the variance associated with neuropsychological test performance, age, gender and education. These preliminary data suggest that the learning performance of stroke patients may reflect a general capacity for cognitive-behavioral change, which is essential to the rehabilitation process.

Margaret Barabash, "Evaluation of a Structured Orientation Programme for Families of Institutionalized Seniors," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1989.

This research investigated the attitudes of staff and family members towards specific caregiving tasks provided to elderly residents of an auxiliary hospital. One of the primary purposes of this research was to identify differences between staff and family attitudes. A second purpose was to assess the effect of a family orientation programme on the attitudes of family members towards caregiving tasks. There were several items which family members identified as primarily staff responsibility and which staff saw as joint responsibility. Alternately, there were areas where families were more willing to become involved than staff expected. After the orientation programme, the responses of members of the experimental group suggested that these family members tended to expect to be jointly responsible for more tasks than did the control group, who still appeared to see tasks as either a staff or a family responsibility.

Jagruti Dholakia, Mathew Zachariah, and John McNeill, "Problems of South Asian Seniors Living in Calgary," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1986.

This study on the family support system and adjustment problems of South Asian seniors was undertaken with a view to providing useful information to various service agencies about the needs, interests, family support system and the problems of these seniors. Investigated were the areas of family and other support systems for aged people of South Asian origin; the interest and leisure time activities enjoyed by these elderly people; their needs; and how they relate South Asian experiences to Canadian society. The study's suggestions included outreach, orientation to Canadian life, support services to families who have seniors living with them, inter-generational and ethnic-cultural programs as well as English language teaching with a content of interest to seniors.

Allen Dobbs and Brendan Rule, "Cognitive Declines in Dementia, Normal and Abnormal Changes in the Cognitive Abilities of the Aged Population," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1989.

The research goals were: (1) to describe the behavior of Alzheimer residents of a nursing home; (2) to compare their behaviors with those of non-Alzheimer residents in the same nursing home; and (3) to examine how changes in the physical environment affected the Alzheimer residents activities. The differential behavioral expression and use of space by demented and non-demented residents has implications both for the design of institutions and management of residents. The most frequent behavior of Alzheimer residents was inactive sitting or standing. When active, the Alzheimer residents spent as much time engaged in socially appropriate behavior as did the non-demented residents. Socially inappropriate behaviors were infrequent. Walking was one of the more frequent behaviors of the Alzheimer residents. They seldom verbalized, but when they did talk, it was appropriate as much of the time as it was inappropriate. Communication was often gestural.

Claudia Emes, "A Study of the Effectiveness of a Specialized Intermediary Exercise Program on Sedentary Less Well Older People," funded by the Alberta Senior Citizens Secretariat, 1989.

This study was to examine the effects of the specialized Body Recall physical exercise program involving recuperative and sedentary older adults from two nursing homes in Calgary. The main objective was to evaluate the physical and emotional effects of teaching seniors specific exercises to enhance wellness. Although the results showed little significance in physical improvement in the participants, there were more significant statistical differences in people's feelings of well-being. The study was marred by lack of support from the nursing home staff and administration and the consequent low and sporadic attendance of participants. The importance of staff being educated in the benefits of physical activity programming for nursing home residents was highlighted.

Margaret Gee and Zenia J. Hawrysh, "A Study of Taste Perception and Dietary Intake of Elderly Albertans," funded by Alberta Senior Citizens Secretariat, Edmonton, 1988.

Suprathreshold taste perception and dietary intake of: (1) sixty free-living females and (2) sixty free-living males (30 elderly and 30 young) were assessed and relationships between taste perception and nutrient intake were examined. Taste perception was evaluated by magnitude estimation for both taste intensity and pleasantness. Two taste qualities (sourness and saltiness) and two systems (aqueous and food) were studied. Dietary intakes were assessed quantitatively for four days by means of a combination of dietary recall (one day) and food records (three days). One of the most important findings in the present study was that, for the elderly females, the subgroup with steeper slopes of taste intensity was at greater nutritional risk than the subgroup with flatter slopes. Findings from the study of males suggest that important relationships between taste perception and dietary intake also exist.

John Higgin, "Urinary Incontinence in the Institutionalized and Non-Institutionalized Elderly," funded by Alberta Senior Citizens Secretariat, Edmonton, 1989.

The study demonstrates that the problem of urinary incontinence (UI) is common even among the active members of a community seniors centre and that it occurs in almost three quarters of the institutionalized elderly. A preponderance among females is demonstrated. Males are significantly more likely to have informed their physician of the problem than females. The dearth of investigations even after the condition is reported suggests that physicians need to be convinced of the prevalence of the problem and that they must be educated not to ignore this condition. Community-living individuals with UI are willing to try strategies to alleviate their problem, as is shown by the frequency with which they reported on their coping strategies. This suggests that they are willing to participate in programs to prevent the development of UI. The study demonstrates the need for educational programs for the elderly and health care professionals.

Nancy L. Hurlbut, "The Influence of Social Experience on the Learning of Senior Adults and College Students," funded by Alberta Senior Citizens Secretariat, Edmonton, 1987.

This study investigated how age and one environmental factor (stereotypes) influence both the elderly's evaluation of their learning and their actual performance. The objective was to discover whether environmental interventions that confront negative stereotypes could reduce the memory deficits about which the elderly complain. Ninety-three elderly and 85 college students were randomly exposed to one of four stereotypical experiences. The analysis revealed that the elderly's evaluation of their learning ability can be raised or lowered by interacting with older models who are performing poorly or well, respectively.

Norah Keating and Karen Warren, "Factors Which May Predict the Institutionalization of Alzheimer's Patients," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1988.

This study focussed on the gap in understanding the caregiving experience of relatives of Alzheimers' Disease (AD) patients. The first objective of the study was to identify patient characteristics, characteristics/circumstances of caregivers and extended family which might predict whether a patient is institutionalized relatively soon after diagnosis or maintained for several years in the home of a caregiving relative. The second objective was to describe caregivers use of community and government support services, determining the perceived helpfulness of services and identifying where more support is needed. It seems clear from this study that we have a great deal to learn about the current and previous dynamics of families in which a member has Alzheimer's disease. The study also indicates that current emphasis on provision of community support to caregivers and their ill relatives needs to be elaborated with detailed proposals about the specific type and location of care.

Donald W. Kline, "Report on Visual Aging," funded by the Alberta Senior Citizens Secretariat, 1988.

This study investigated age related slowing in visual perception. The results suggested that visual tasks related to moving or quickly flashing stimuli would likely put older persons at a disadvantage. Also indicated was the likelihood of the older person experiencing visual difficulty under low light conditions (e.g. night driving). The relatively low light level in vision testing machines used by government motor vehicles departments may underestimate the older driver's accuracy for daytime conditions. Finally, the study indicated that, with aging, the effectiveness of the right side of the brain diminishes at a faster rate than the left. Future research was suggested to determine the degree these changes affect visual functioning on important everyday tasks.

Cheryl L. Knight, "Nursing Home Placement Consideration," funded by Alberta Senior Citizens Secretariat, Edmonton 1989.

The purpose of this research was to provide the elderly persons' perspective of the experience of considering nursing home placement. Interviews of fourteen selected informants were completed. The content of each interview was analysed using a grounded theory method of constant comparison. The analysis revealed that changes which interfered with the successful completion of normal tasks of daily living to such an extent that independent living was no longer feasible constituted a crisis and led to consideration of nursing home placement. The researcher concluded that recognition of events prior to relocation and the individual's perception of the impact and meaning of those events will enable community and institutional nurses to assist in the positive adjustment to nursing home placement. Recognition and promotion of "abilities within inabilities"--regardless of living arrangements--was seen as today's challenge for geriatric nursing care.

Nan MacLeod-Engel, "The Television Experience of a Group of Confined Elderly: A New Challenge for Community Development," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1986.

The purpose of this investigation was to gain an understanding of the role that television plays in the daily lives of a number of elderly individuals who are partially-confined and socially-restricted in a long-term care facility. This study brought together ideas, impressions, dialogues, and observations of 10 primary and 20 secondary informants, who expressed their thoughts about the meaning that television had for them in their daily lives. Four personal functions - orientation, education, entertainment, distraction and relief, and a fifth, more social function of power and control - were discovered. The overall findings of this study seemed to indicate that the institution-bound older adult participants were heavy users of television and that they watched television to meet "real" or perceived needs which were to a greater-or-lesser degree created by the slow but continual process of disengagement from their families, friends, and community.

Janice Dickin McGinnis, "Aging and the Law in Alberta: Surviving Within Our Legal System," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1989.

The purpose of this project was to compile information useful in discussing the following three questions:

1. Is the legality of a universal system of old age assistance open to challenge, especially under s. 15(1) of the Canadian Charter of Rights and Freedoms? The study suggests that the system is subject to a successful attack.

2. If universality is ended, what alternative non-universal systems could be established to provide fair and equitable relief to those elderly who depend on such assistance? Alternatives put people "on trial" of being needy or deserving.

3. What type of advocacy system could then best be established to ensure the rights of individuals who find their rights circumscribed by a non-universal system? Suggested are such measures as accessible legal help, appeal procedures, public education.

John R. Minnis, "A Study of Volunteers Using the Facts on Aging Quiz," funded by the Alberta Senior Citizens Secretariat, 1986.

This study used the Facts on Aging Quiz (FAQ) to: (1) measure and compare overall levels of information about aging among volunteers assisting the elderly, and (2) identify the most frequent misconceptions of volunteers about aging. The quiz is a true-false instrument designed to measure people's understanding of basic physical, mental and social aspects of aging. The FAQ was found to be useful in identifying differences in overall knowledge levels and misconceptions about aging. In quiz performance age alone was found to be an insignificant factor. Previous training in volunteer work or geronotology appeared to be positively associated with the level of knowledge on aging. Volunteers were most frequently misinformed on the proportion of the aged in long term care facilities, and of their inflexibility, their financial status, and the pattern of instability among them. Although older volunteers knew slightly more about aging than younger ones, both groups showed similar misconceptions.

E.M. Pajurkova, G.W. Jason, and D.E. Read, "Effectiveness of Memory Testing in Elderly People With Memory Problems," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1989.

This study was designed to evaluate the effectiveness of several standard measures of memory and those developed by Read (1987). Forty elderly people without memory problems and forty patients with memory problems volunteered to be tested in this project. The results of the study showed that the standard way of assessing memory in the elderly yields valid and practically useful results. However, the new tests contributed a dimension, which was thus far lacking. These tests differentiated well between the control and patient groups. In addition, they provided information about those memory processes which

remained relatively well preserved in people with otherwise well documented memory problems. The tests are worth incorporating into the clinical assessment protocols, as they are of significant clinical interest. They provide information about memory problems as well as residual abilities, which can be useful in the counselling of patients, their relatives, and other caretakers.

Reciprocal Interdisciplinary Steering for Geriatric Services in the North Peace River Region, "A New Beginning: A Review of the Needs of Seniors in the Peace River Health Unit," partially funded by the Alberta Senior Citizens Secretariat, Edmonton, 1986.

This study was initiated:

- to describe the senior citizen populace in the Peace River area;
- to describe their use of health care services;
- to report seniors' opinions regarding current services;
- to identify services required to keep seniors independent for as long as possible;
- to describe seniors housing conditions and to identify their future requirements;
- to identify seniors' information needs;
- to describe an effective means of transmitting information to seniors; and
- to describe and promote the development of a "services coordination model" a what-to-do structure - which includes participation among planners and users, that is, seniors.

The outcome of the study provides an analysis of the seniors' responses and recommendations as to future directions for services to seniors in the Peace River area. The research findings are likely applicable to other areas of the Province of Alberta as are the recommendations.

Kenneth Rockwood, "Elderly Patients With Non-Medical Hospital Stays," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1988.

This study reports on non-medical hospital stays in eighty elderly (65+ years) patients admitted to two general medical services in teaching hospitals in Edmonton, Alberta. The average length of stay for the eighty patients was 16.6 days, of which 3.5 days on average were non-medical. Non-medical stays occurred in 14% (11/80) patients, accounting for 21% of the total days stay. Patients with non-medical stays tended to come more often from long term care institutions and/or to be dependent in essential activities of daily living. Interventions to reduce non-medical stays were limited by the frail nature of the patients, their lack of support and existing administrative relationships with long term care institutions. The study suggests that acute care hospitals will need to recognize their responsibility and undertake formal programs for the long term care of many of these patients.

Kenneth Rockwood, Asad Brahim, and Paul Stolee, "Acute Confusion (Delirium) With Psychomotor Agitation in Patients Admitted to a Psychogeriatric Service," Senior Citizens Secretariat, Edmonton, 1989.

Agitated behaviour in the elderly is sometimes a presentation of illness. In patients with acute confusion (delirium) the presence of agitation is reported as a sign of a right cerebral hemisphere lesion. This study researched 130 consecutive patients admitted to a psychogeriatric service. On admission, patients were assessed clinically using standardized tests. DSM-III diagnostic criteria were used. The median age was 75 (range 34-92 years); 71 men and 59 women were admitted. Twenty-two patients (17%) with disruptive behaviour required primarily medical treatment; of these, nine had acute confusion with psychomotor agitation. Patients with agitated confusion were significantly (p 0.01) more likely to have a right cerebral hemisphere lesion. The study suggested that psychogeriatric services require appropriate medical support for diagnosis and treatment.

Kenneth Rockwood, Paul Stolle, and Asad Brahim, "Outcomes of Admissions to the Psychogeriatric Service of Alberta Hospital, Edmonton," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1989.

This study reports one year's experience, with one year follow-up, of 130 consecutive admissions to a psychogeriatric service at Alberta Hospital, Edmonton. On admission, in addition to a history, physical examination and laboratory and radiographic tests, patients underwent several standardized assessments. Approximately half the patients came from the community and half from long term care (LTC) institutions; 38% were admitted via an acute care hospital. The median age was 76 years (range 34-92). Wandering and aggression were the most common reasons for referral. Dementia (57%) and depression (19%) were the most common diagnoses. The median stay was 92 days (range 1-365 days) and was longer for patients admitted from LTC. The hospital mortality was 16% and subsequent mortality at one year was 5%. Approximately half of the patients were discharged to their original residence. These results suggest that even very severely disturbed behavior can usually be managed successfully.

Donna Rutherford, Trudy Meijer-Drees and Joyce Elliott, "The Feasibility of Developing Shared Housing for Seniors in Calgary," funded by the Alberta Senior Citizens Secretariat, Edmonton, 1985.

This study was undertaken to evaluate shared housing in Calgary as an additional option and a new level of care on the existing housing continuum. It found that physical functioning needs of seniors residing in the community appeared to be met, while needs pertaining to opportunities for contact and participation in meaningful activity were generally unmet. The degree of impairment in physical functioning ability of these community seniors was found to be similar to that of seniors in lodges or nursing homes. Evaluation of the reasons the latter group chose to move to a care facility indicated that primary factors were lack of support from family and friends, loneliness, and difficulty getting out. These corresponded well to the needs identified as unmet in the

community group. Subsequent analysis suggested that these needs, which appeared to motivate the move to a care facility, were not fully met once there.

David Senesh, "Later Life Depression: Attributions of Causality and Control in the Life Review Process," funded by Alberta Senior Citizens Secretariat, Edmonton, 1988.

Drawing upon Abramson, Seligman, and Teasdale's (1978) reformulated learned helplessness model of depression, this study hypothesized that, compared to nondepressed counterparts, the depressed elderly, reminiscing events in their life-stories, would more frequently (1) internalize the causes of negative events and externalize the causes of positive ones, (2) project lower estimates of personal control ("helplessness") over life-events and their causes, and (3) generalize their sense of helplessness throughout their lives. The resulting data showed that non-depressed reminiscers consistently said they had more control over major positive and negative life events than their depressed counterparts. There were no significant differences, however, in attributions of causality (internal/external) and the generalization of helplessness in the life-stories of the depressed and nondepressed elderly. The study findings, which partially supported the learned helplessness model of depressive attributions, suggest that depressed and non-depressed reminiscers may indeed "read" their life-stories differently.

Frank Trovato and Gloria Lauris, "Mortality Trends of Middle-Aged and Elderly Albertans, 1951-81," prepared for the Alberta Senior Citizens Secretariat, Edmonton, 1987.

This study determines trends in the major causes of mortality of middle-aged and aging Albertans and other Canadians over the past 30 years (1951-1981). All causes of death are studied as a group but particular emphasis is placed on cardiovascular disease, malignant neoplasm mortality and suicide mortality of Canadians 35+.

Comparisons of cause of death mortality are made by social demographic factors believed to be associated with mortality, namely age, gender, marital status, and province (region). Vital statistics and census data are analyzed using descriptive and multivariate procedure.

Dixie E. Watson, "Family Help to Family Caregivers of Alzheimer's Patients," research project funded by Alberta Senior Citizens Secretariat, Edmonton, 1988.

This study examines the family help received and the family help desired by the primary family caregiver of a relative suffering from Alzheimer's disease. The two major categories of primary family caregivers included spouses and adult children. The theoretical perspective through which the research was approached was that of choice and exchange theory. Exchange theorists would suggest that the type of exchange relationships for elderly spouse caregivers would be different than for adult child caregivers. The literature findings were inconclusive. The sample included 31 spouse and 25 adult child caregivers. Analysis was conducted on the amount of family help received by the primary caregiver, the frequency of family help provided to the primary caregiver, and the desire for family help expressed by the primary caregiver. Contrary to predictions, the data analysis revealed no difference in the help received and the help desired between the two groups of primary caregivers.